THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

VOL. XXI. WEDNESDAY, DECEMBER 25, 1839. No. 20.

ON "ALKALINE INDIGESTION."

DR. ROBERT DUNDAS THOMSON read a paper at the recent meeting of the British Association at Birmingham, of which the following is an analysis :—

The author stated that he discovered this form of dyspepsia in 1835, and had communicated the results of his observations to the Medical Section of the British Association at Bristol. Since that period he had continued his researches, and had confirmed the accuracy of his first results by the examination of a very large number of cases. It has been long known that in stomach complaints fluids are frequently ejected from that viscus into the mouth; and it has been by examining the chemical constitution of those fluids that the author has been enabled to simplify, in some considerable degree, one of the most disagreeable forms of dyspepsia. Dr. Thomson divides the fluids which he has detected in these complaints into *acid*, *alkaline* and *neutral*.

1. The *acid* state is familiar to most persons. In the natural, there is no doubt that during a certain period of the process of digestion the contents of the stomach exhibit an acid re-action; that is to say, that litmus paper dipped in the fluid existing in the stomach becomes red; that the fluid tastes acid, and that when distilled over, a quantity of pure water having been previously added, the fluid which passes into the receiver exhibits a faint acid re-action. This does not occur, according to Schultz, however, during the first half hour or hour of the process of digestion. The acid would, therefore, appear to be generated by the process. The discussion with respect to the nature of the acid Dr. Thomson stated that he would reserve for the Chemical Section. When this natural acid, however, as it may be termed, accumulates to a certain extent, symptoms of disease exhibit themselves in the form of a burning sensation at the pit of the stomach, with acid eructations, which do not, however, alleviate the pain. This is the characteristic symptom of *acid indigestion*.

2. The second form of indigestion, indicated by the fluid ejected from the stomach, Dr. Thomson terms *alkaline indigestion*. It is characterized by violent pain in the region of the stomach, accompanied, frequently, with headache and faintness, with a sensation of spasm or contraction in that viscus; the sensation goes on increasing till it frequently becomes intolerable, and, at last, when the agony is complete, the patient is suddenly roused by a determination to the mouth of a

large quantity of fluid, which must be immediately evacuated to give place to a succession of similar occurrences; at last, however, the flow of fluid becomes so abundant as to constitute an actual stream; it continues to flow for some time, but gradually diminishes in quantity, and at length ceases, and with it the pain in the stomach. The latter is the characterizing symptom of *alkaline dyspepsia*, or *pyrosis*, as it has been frequently termed. But hitherto it has always been confounded with other forms of indigestion. Dr. Prout has published an account of his examination of the fluid of pyrosis, and has stated that it was acid; the fluid, however, was not procured by himself, but was sent him from one of the hospitals, where the mistake was very likely to occur. This form of indigestion occurs much more frequently than is generally imagined. Dr. Thomson stated that out of 40 or 50 patients daily seen at the Blenheim-street Dispensary, in London, he generally met with one or two affected with symptoms of this description. It frequently occurred in coincidence with affections of other organs—as of the uterus, liver, &c., and was often of such a pressing nature that it required more of the skill of the medical man than the original disease. Certain it was that it was absolutely necessary to treat it with as much care as the original complaint, and if the action had been allowed to go on for some time unchecked, the secondary affection became as firmly fixed as the original disease which had induced it; so that after the removal of the latter a secondary disease, as truly rooted as the first, required to be taken under the physician's care; the treatment consisted of the administration of acids, tonics and narcotics, which required to be prescribed with care, otherwise the *acid indigestion* was frequently induced, which was as difficult to eradicate as the alkaline form.

3. The last form of indigestion, as indicated by the fluid ejected by the mouth, which the author had met with, was a *neutral* state, which was of much rarer occurrence. Dr. Thomson had, however, met with several cases, and had succeeded in overcoming the disease by the use of tonics.—*London Lancet.*

REMARKS ON IODINE AND THE HYDRIODATE OF POTASSA IN CHRONIC DROPSY, WITH CASES.

BY P. SPALDING, M.D., HAVERHILL, N. H.

[Communicated for the Boston Medical and Surgical Journal.]

It is highly probable that the medicinal virtues of many of our most approved remedies are but imperfectly understood, and especially those recently introduced to the notice of the profession. With much propriety it may be said of iodine and its compounds, our knowledge, as yet, is extremely limited. Though it has been used by many physicians, and applied in a vast variety of diseases, still an amount of knowledge is yet to be acquired, which can only be obtained by long and careful observation and experiment. That iodine possesses heroic virtues, cannot be doubted; and notwithstanding its "*modus operandi*" is not clearly understood, facts incontestibly prove that we have no remedy

which can take its place. From a general use of this article for twelve years, I have been led to conclude that it was a tonic or stimulant of a peculiar character, operating upon textures not easily affected by other agents, exciting the absorbents in a most powerful manner, and enabling them to remove unnatural deposits, and even endangering, by a long continuance in its use, the absorption of healthy textures. Its operation is entirely different from mercury, though it may resemble it in some respects. While the latter is well adapted to common and some kinds of specific inflammation, equalizing the circulation, changing the nature of the action, breaking up morbid associations and habits, stimulating the secretions, &c., iodine operates more directly upon the textures not attended with common inflammation, but generally affected with specific irritation or inflammation, partaking of the nature of scrofula or tubercle. Though its operation is not confined to the above condition of the system, yet it must be admitted that we have no article in the materia medica that has such a controlling influence over the incipient stage of tubercle, or so directly and efficiently removes scrofulous depositions and irritations.

If the early stage of phthisis was carefully observed, and that condition of the system favorable to the production of tubercles understood, so that a judicious use of iodine or some of its compounds could be administered before the tubercular deposit had destroyed the surrounding texture, it is more than probable that a vast amount of human life might be saved, and a disease, which has been the terror of all ages and classes, be disarmed, and many, who go down to the grave prematurely, a reproach to the medical profession, be saved. The incipient stage of tubercle is too much overlooked, and its diagnosis not sufficiently pointed out. Perhaps the nature of the subject will not admit of this; but could it be done, and an early resort to iodine, or its compounds, together with diet, exercise, cleanliness, and those means which give tone and vigor to the system, be adopted, it would constitute a new era in the treatment of a class of diseases which destroys a great proportion of the civilized world.

But in this communication I wish more particularly to direct the attention of the profession to the use of this article in chronic dropsy, in confirmation of what has already been given to the public. Having observed, in the London Lancet, that the hydriodate of potass had succeeded in curing several cases of dropsy which had resisted every other means of treatment, I was induced to try it in the following cases, and the result was such as to leave no doubt on my mind that the writer of that article had come to correct conclusions, and that iodine, in certain cases of dropsy, will effect what no other agent as yet discovered can do.

Case I.—I was called, June 10th, 1836, to Mrs. F., ætat. 23, in labor with her first child. Four months after becoming pregnant, she began to bloat more than was common at that stage of pregnancy, and it continued to increase, notwithstanding the usual mode of treatment was perseveringly resorted to, until it became enormous; the whole cellular membrane filled with water, the ankles burst open, the abdomen was enor-

mously enlarged, breathing laborious and frequent, palpitation of the heart, with strongly-marked symptoms of hydrothorax. She had an easy labor of about four hours, when she was delivered of a feeble child, weighing about five pounds. Strong hopes were now entertained that she might do well, and absorption take place, as is most usual under similar circumstances. Two days after, I was called, and found the abdomen larger than before the birth of the child, tender, fluctuation very distinct, cellular membrane distended to bursting, diaphanous, breathing laborious and frequent, pulse 130 and feeble, tongue slightly furred and dry, urine scanty, lochia almost colorless, palpitation, bowels constipated. Directed a purgative, calomel and jalap, to be followed once in six hours with tinct. digitalis gtt. 20, spt. nitre dulcis gtt. 40. Drink freely of cream of tartar, and Dover's powder at night.

June 13th. Cathartic operated well; stools green and slimy; urine wanting; other symptoms as day before, except an increased hardness of the abdomen. Continued the medicines. 14th. Full discharge from the bowels; stools yellow; breathing more laborious; half a pint of urine the last two days; lochia colorless; other symptoms as before. Continue the treatment. 15th. Palpitation increased and breathing suffocating; bloating not abated. Being greatly alarmed, I resolved to give the hydriodate of potass a fair trial.

The following course of treatment was adopted, which succeeded in the course of 24 days in removing entirely the disease. Directed hydriodate of potass gr. 5, spirits nitre dulcis, ʒ i., to be taken four times a day; gentle cath. cr. tartar and jalap, Dover's powder, at night. In two days the urine began to increase; bowels became so loose that the cr. tart. and jalap was discontinued. The potass was gradually diminished, as the symptoms abated. In three weeks it was discontinued, and recourse had to a gentle course of tonics, which soon restored the patient. At no time during the treatment was the urine very much increased, or the stools particularly fluid; much of the water must have passed off by insensible perspiration. Some doubts rested on my mind what agency the hydriodate had in the above case, more particularly as most patients with puerperal dropsy recover after the birth of the child; but so far as I could judge, it operated like a charm. There can be no doubt, in the following case, that iodine effected a most remarkable cure.

Case II.—R. S., ætat. 20, March, 1835, complained of pain in side, back and bowels, extending from the back through to the umbilicus; amenorrhœa, loss of appetite, slight fever, bowels constipated, and a fulness in the hypogastric region. Although submitted to judicious medical treatment, the bowels gradually enlarged, until it was suspected that she might be *enceinte*, and this suspicion was increased from the fact of there being an uncommon shyness when any allusion was made to the particular cause of her complaint. Time, however, proved the incorrectness of that opinion, and the abdomen continued to increase, and though submitted to the most active course of hydragogues, diuretics and mercurials, and every plan of treatment that afforded the least prospect of success, she was at last abandoned by her physicians, and her case considered hopeless. She continued, several months previous

to my being called, bolstered up in bed, with breathing accelerated, laborious, and often suffocating; was at times thought to be dying; bowels greatly enlarged and costive; urine scanty, high colored; appetite very poor, and no relish for food of any kind; feet and legs slightly œdematous; the least motion put her very much out of breath. When called, October, 1836, the pulse was 110, feeble; tongue moderately coated and pale; skin bloodless; urine scanty; breathing laborious, like a person panting for breath after violent exercise; bowels confined, greatly enlarged, and as hard as an encysted tumor; not the least fluctuation could be observed.

From the remarkable hardness of the abdomen, its gradual enlargement, and the persevering use of active and appropriate medicines which had been given, I was somewhat in doubt in making out a diagnosis, but concluded, at least, if it was not a case of encysted dropsy, it was one that would be benefited as much by iodine as by any other remedy. Directed five grains of blue pill at night, followed the next morning with cream of tartar, gamboge, and jalap, so as to operate decidedly on the bowels, and to be repeated as often as the strength would admit, which was once in two and three days. Gave hydriodate of potass, gr. v., iodine, 1-16, in water, once in six hours; compound powder of ipecac. at night; nutritious diet, and agreed to call again in two weeks, at which time the medicines had all operated favorably, but no sensible abatement of the symptoms, except the bowels were less hard, but could not detect a fluctuation; breathing very little improved. Medicine continued two weeks longer, when I saw her again; symptoms then considerably improved; bowels quite soft, easily moved with alteratives, and a distinct fluctuation; breathing much relieved; appetite improving; urine greatly increased. The voice, which had heretofore been a whisper, was distinct and audible. Directed a cushion to be applied to the abdomen, laced as tight as could be comfortably borne; diminished the iodine and potass one third, omitted the blue pill, made a small caustic issue to the spine, as there was considerable tenderness between the shoulders, and continued the other treatment as before. This course was followed up for several weeks, when the iodine was still farther diminished, and the carbonate of iron substituted; and at the end of four months from the commencement of treatment, the bloating had entirely disappeared, and the patient was comfortable about the house, and able to do light work. The catamenia returned after a few months, under the use of tinct. of guaiac., friction to the lower extremities, invigorating diet, exercise, and blisters to the mammæ. She has since enjoyed perfect health.

Case III.—L. T., ætat. 19. This patient had been unwell for two years, with amenorrhœa, bloating of the abdomen and lower extremities, costiveness, indigestion, urine scanty, high colored, and at times voided with difficulty. She had been under medical treatment from the commencement of her illness until I saw her. Catamenia had returned once during her sickness, but with no apparent amendment. When called, the disease had assumed a more acute form; bowels considerably enlarged, tender on pressure, and constipated; vomiting for the last two days almost incessant, of a bluish green fluid; pulse 120, small and

wiry; tongue, dark coat in the middle, red at the sides, and very dry; urine scanty; bowels had not been moved for four days, though a large quantity of various kinds of physic had been given, followed by active injections, until they were abandoned as of no use. Took 16 ounces of blood from the arm; directed 20 leeches to the abdomen once in two hours; a blister to the spine, to be dresssd with 40 grains of calomel; rice water; perfect rest. Next morning the pulse were a little fuller, and not quite so hard or frequent; vomiting had abated, except when something was taken into the stomach; not more than a teaspoonful of rice water could be borne without exciting vomiting; other symptoms as the night before. Continued leeches during the day; blister to the abdomen; gave two grains of calomel and half grain of opium in a small pill once in four hours, and occasionally a brisk injection. The next morning there was a free discharge from the bowels, and a slight ptyalism was excited. The irritation of the stomach subsided, the bowels became loose, soreness almost abated. The ptyalism continued about ten days, after which she gradually improved, so that in a few weeks she was comfortable. I felt in hopes that the salivation might change the nature of the action, produce absorption, and prepare the way for a permanent cure. But the bowels remained bloated the same as before the acute attack; more easily moved with physic and laxatives; urine scanty and high colored; countenance very pale; amenorrhœa.

Under this state of the system, I directed three grains of the hydriodate of potass, to be taken in solution once in six hours, and gradually increased to five grains, and continued until there was a change in the quantity and quality of the urine. In about ten days the bloating began to diminish, urine moderately increased, together with a very sensible amendment of the appetite. The hydriodate was gradually diminished as the bloating disappeared, and the carbonate of iron substituted as a tonic, and at the end of 12 weeks the catamenia returned, and every symptom of disease had disappeared. This patient has been uncommonly healthy and robust ever since.

The above cases are not presented to the profession, believing that iodine is a specific, or that it was the sole agent in effecting the above cures; but still it is believed, whatever agency other remedies might have exerted, that without the use of iodine or the hydriodate, we should have failed in producing absorption, and that great confidence may be placed in the use of this remedy in chronic dropsy.

Nov. 15, 1839.

REMEDIAL EFFECTS OF DIET.

[Dr. John Forbes, editor of the British and Foreign Medical Review, and one of the editors of the Cyclopædia of Practical Medicine, writes as follows on this subject. What a contrast to the doctrines so strenuously advocated by some of our modern philosophers and physiologists! It is possible, however, that some of his remarks are more applicable in his country than in ours.]

When we learn, from some good people, that man may live well on a vegetable diet, and that his clay requires nought but water to moisten it, instead of gainsaying them, we refer them to the corn mart, in Mark Lane, or some other assemblage of tillers of the soil, for specimens of the connexion of air and exercise, meat and beer, with large, athletic, vigorous, healthy forms. And when we find some of our well-meaning acquaintance educating their children in habits of abstinence and water, and complaining that, notwithstanding their careful dietary, the little growths are not so vegetative as they could wish, we have often found reason to congratulate them, that the daily allowance of a glass of stout and a little more meat has entirely altered the appearance of things; has put an end to a catalogue of pains, and aches, and disorders; has colored the pale cheek, and has made what promised to become a rickety bantling into a reasonably healthy boy. Why mankind requires the diet which we should recommend, is a question which would be better answered by an experienced breeder of cattle than by any one beside. At present we are disposed to be dogmatic; and to say that, in the great majority of cases, whether from the habit of parents having communicated a particular disposition to their offspring, or from the effects of injudicious general intellectual and physical management, the strongest organization will not be raised in this country on oatmeal and potatoes—add to these as much water as you may—but on good meat and bread, with *genuine* infusion of malt and hops; we say "genuine," because the scandal which attaches itself to beer is—sometimes at least—owing to the poisoned compound which it too often pleases and profits brewers to sell under that name.

In reasoning on the subject of diet, it should always be borne in mind that men are rarely living in a wholesome state, but are habituated to practices very foreign to health; that the exertions which, in a simple state of society, would have sufficed for maintenance, are not regarded as sufficient now, and that they are too often accompanied by an anxiety and disappointment which are as exhausting as the exertions themselves; and, moreover, that the effects of these and many other circumstances, which must occur to every reflecting practitioner of medicine, are such as diminish and exhaust power. It would be very easy, and on that account it is unnecessary, to give any illustrations of the above remarks.

A careful investigation of the history of a case, and great attention to both hereditary and acquired constitutional peculiarities, and to temperament, are necessary to the practical application of any dietetic rules. But we believe that it is the diet, far more than any medical treatment, that is important in many cases; and, not until diet is made a subject of more permanent importance than is at present the case, will the physician obtain, in the management of the vast class of cases termed nervous, the credit which he assuredly does not at present possess. It has fallen to our lot to observe cases of this kind, of years' duration, and some of the most distressing character, which have been subject to all the systems of simple medical treatment which ingenuity could devise for their relief, but which have speedily, we might almost say instantaneously, been relieved by the discontinuance of the medicine, and the employment of diet and regimen instead. We could derive from facts

of this sort, the strongest arguments in favor of change in the present mode of remunerating medical practitioners in this country; such a change, in fact, as should tempt the practitioner, on seeing his patients, to ask himself—instead of "What medicine shall I give in this case?"—"Is it necessary to give any medicine at all?"

There are many individuals who have always been used to such a diet as would suit the majority, but which is not proportionate to the demands of their constitution, and the exertion, either mental or bodily, to which their daily avocations call them. They suffer from palpitations, or frequent despondency, or repeated headaches. A moderate daily allowance of good beer or wine, with an increase of animal food, is a rapid, certain, and perfect cure for these complaints.

CONGENITAL MALFORMATION.

[Communicated for the Boston Medical and Surgical Journal.]

Some time in August last I was called, in the night, to visit Dr. Webster's family, of Hill. Mrs. W. had been confined, the previous afternoon, of a male child, and was then comfortable. Nothing unusual appeared in the child at birth; its exterior was perfect, so far as had been discovered, and its features were uncommonly beautiful. Very soon, however, it was seized with spasms, attended with a livid appearance over the face and neck, and in some degree over the whole body, more especially when anything was put into its mouth. The nurse told me, on my arrival, that she believed the child could not swallow. Finding nothing in the mouth to obstruct the passage to the throat, and in order to satisfy myself as to what the nurse had stated, I directed her to give a teaspoonful of warm drink. The child made no effort to swallow, but was immediately convulsed, accompanied with the lividity above mentioned, and the drink which had been given was returned by the mouth and nose, mixed with bloody mucus. Supposing there might possibly be some spasmodic stricture of the œsophagus, and that gently stimulating the rectum would remove the difficulty, I advised an injection of warm water per anum. But in attempting to comply with the direction, no outward passage could be found; not even the vestige of an anus was seen; all was as smooth as the hand, except the raphe, which extended from the scrotum to near the point of the coccygis. All the circumstances of the case considered, it was not thought advisable to attempt any operation, and I took my leave, expecting soon to hear that the child was dead. It remained, however, much the same till the next day; it would sometimes lay quiet, as though nothing ailed it; and the anxious parents, desiring that something might be done, if possible, to relieve the little sufferer from its impending fate, sent for me again, and two others of the faculty. The result of this consultation was, that an attempt be made to open a passage into the rectum. An incision was made in the integuments, about an inch long, half way between the scrotum and coccygis, and an abscess lancet introduced about an inch and a half in the direction to pierce the lower portion of the gut, if it were in its natural situation. No portion of the intestine was reached,

and, of course, the operation failed—and the poor little thing was again left to its fate. It lingered a day or two, without any change of symptoms, and expired.

Post-mortem Examination.—The abdomen was considerably swollen, from gaseous distension of the intestines. No other abnormal appearance was noticed in the alimentary canal, except at its extremities. On dissecting out the lower portion of the track, it was found that the rectum, instead of pursuing its natural course down the concave surface of the os sacrum and coccygis, took an anterior direction towards the bladder, and terminated in a cul de sac upon the posterior portion of the neck of that viscus. The bladder could be inflated from the rectum by means of a blow-pipe, though the communication could not be traced by a common probe.

FIGURE 1.—*a*, Portion of the perineum. *b b*, Ureters. *c*, The rectum ending upon the neck of the bladder. *d*, The urethra.

The condition of the upper end of the tube was still more remarkable. The pharynx terminated in another cul de sac, about two inches below the fauces. The œsophagus, tracing it upward from the cardiac orifice of the stomach, diminished in size as it ascended, till it finally ended in a few scattered fibres, passing through an opening in the posterior part of the trachea, to be inserted upon its inner surface.

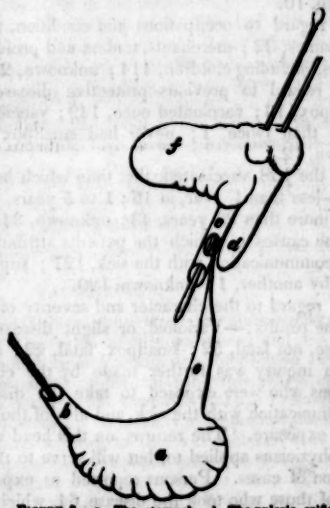

FIGURE 2.—*a*, The stomach. *b*, The pyloric orifice. *c*, The trachea. *d*, The pharynx, ending in a cul de sac. *e*, The œsophagus, ending upon the inner surface of the trachea. *f*, The tongue.

I have procured a drawing of the dissection, which I enclose in this communication, and which, together with the communication, is at your disposal.

Yours, &c.,

Sandbornton, N. H., Dec. 4, 1839. THOMAS P. HILL.

REPORT ON SMALLPOX IN BOSTON.

Reference was last week made, in the Journal, to the reports of Committees appointed by the Boston Medical Association. That on the number of cases of smallpox and varioloid, signed by Jacob Bigelow, M.D., chairman, and J. B. Gregerson, M.D., Secretary, we condense and publish below. After stating that requisite inquiries had been addressed to all the physicians in the city, and that from the answers received it appeared that the disease had been seen and attended by less than half of the physicians, the report proceeds:—It appears that the whole number of cases known to the physicians of Boston during the present epidemic, and up to December 9th, is 248, as follows:

Males, 115; females, 121; sex not stated, 12.

In regard to their place of birth, it appears that there were—Native, 184; Irish, 13; other foreigners, 50; unknown, 1.

The extent of the disease in different sections of the city is as follows:—Eastern section, 9; Northern, 144; Central, 7; Western, 60; Southern, 13; South Boston, 13; unknown, 2.

The ages are as follows:—Under 2 years, 10; between 2 and 10, 44; do. 10 and 20, 49; do. 20 and 40, 101; over 40, 34; unknown, 10.

In regard to occupations and condition, there were—Laborers, 27; mechanics, 32; merchants, traders and professional, 22; domestics, 28; others, including children, 114; unknown, 25.

In regard to previous protective diseases, there had had previous smallpox, 13; vaccinated once, 149; vaccinated twice, 18; vaccinated more than twice, 1; never had smallpox nor vaccination, 55; unknown, 12.

In the 168 vaccinated, the time which had elapsed since vaccination was—less than 1 year, in 16; 1 to 5 years, 23; 5 to 10, 18; 10 to 20, 34; more than 20 years, 43; unknown, 34.

The causes to which the patients attributed their disease, were—Direct communication with the sick, 127; supposed conveyance of contagion by another, 1; unknown, 120.

In regard to the character and severity of the disease, the following are the results:—Varioloid, or slight disease, 145; smallpox, or severe disease, not fatal, 52; smallpox, fatal, 22; character not stated, 29.

An inquiry was further made by the committee into the number of persons who were exposed to take the disease by residence and direct communication with the sick, and also of those who actually took it from such exposure. The returns on this head were made by only a part of the physicians applied to, but will serve to throw some light on the proportion of cases. Persons reported as exposed as above, 1502; number of those who took the disease, 64, which is about 1 in 23.

The committee think it necessary further to state, that a few of the foregoing cases are supposed to be repetitions, in consequence of the same patients having been attended in different periods of their illness by different physicians. They have further to add, that in a separate report obtained from the resident physician of the city, 76

cases are given, a large portion of which were transferred to his care by other physicians, and of course included in the previous part of this report. As the names are not given in his return, the committee are not able to decide on the identity of the patients, but if one half of them be considered as additional cases, it will make the total aggregate of varioloid and smallpox amount to 296 cases, which is believed by the committee to be a full estimate of the whole aggregate, within the last two or three months.

The committee subjoin the following gross results, as illustrative of the protective power of vaccination, as now generally practised in this city.

The whole number of slight cases reported, is 145; severe do. 52; fatal, 22. Making the slight cases to the rest, as about two to one.

The persons reported as immediately exposed to the disease, are 1502, of whom 64 only are known to have taken the disease, or about 1 in 23.

Of the 22 cases which proved fatal, 18 were in persons never vaccinated, nor protected by previous smallpox, being nearly 6 out of 7. Of the remaining four, two had been vaccinated, and two had had the smallpox, one by inoculation, the other in the natural way.

Assuming the population of the city at 80,000, and the number of cases at 300, the proportion of inhabitants who have taken the disease is one to 266. The number of deaths which have occurred is 22, which being averaged on the foregoing population, is 1 in 3636; and of those vaccinated, only 1 in 40,000.

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BOSTON, DECEMBER 25, 1839.

VACCINATION.

At this particular period, when physicians are questioned so much and so frequently about the value of this operation, and the circumstances under which it should be performed, any information explanatory of the laws regulating the action of the vaccine virus, when introduced into the human system, cannot be otherwise than acceptable to the younger members of the profession. A variety of communications, chiefly theoretical in their character, relating to this very subject, were received in times past, originating principally in places where the public excitement was very great, in consequence of the existence of smallpox. Mr. Coggeshall, a student of medicine, who is very familiar with the process of vaccination, having enjoyed uncommon facilities, has presented the following paper, which is entitled to the respectful consideration of those who have leisure or inclination to examine the matter in detail. If he is correct in his deductions, a discovery has been made of consequence to mankind. We have no disposition to meddle with the subject any further than to give it a place in the Journal, with the conviction that gentlemen

competent to the undertaking, will ascertain the correctness of Mr. Coggeshall's views, or show that he labors under a most singular mistake.

Re-vaccination. By J. H. COGGESHALL.—It is a question in medical science, whether re-vaccination is necessary to prevent smallpox. Some say it is, and some that it is not. The common theory among people in general, seems to be this, viz., that re-vaccination is necessary once in seven years. This probably originated from the idea that the human system undergoes an entire change in that period of time; but this notion, to my apprehension, is as false as it is common. A late French writer says that the only safety is in re-vaccination; but he does not tell us under what circumstances it should be performed.

The object of this communication is to prove that re-vaccination is necessary in most cases; and the reason why it is so, I shall endeavor to explain. According to my observations, at the Health Office, in this city, since August last, where many thousand individuals have been vaccinated and re-vaccinated, from the age of four weeks to eighty years, it has been noticed, in hundreds of instances, that those who were vaccinated in childhood were not susceptible of a second vaccination before the age of puberty; but after they had passed that epoch, they were susceptible of a re-vaccination. Those, on the other hand, who received their first vaccination since puberty, were proof against a second operation. The third trial, in all cases, has been ineffectual. It has been proved, beyond a doubt, that where the genuine matter was used, every individual was susceptible of vaccination, except those who have taken the disease the natural way from the cow; and they, of course, were proof against vaccination, varioloid and smallpox.

In visiting the hospital and private patients now sick with the prevailing epidemic in Boston, I have examined them in regard to their vaccination. Those who have had the confluent smallpox, I find have never been vaccinated. Some were children under four years of age; others were people who came from some remote place, where vaccination is but little attended to. Those who have the varioloid, in a milder form, uniformly say they were vaccinated when they were children. Many of them, however, give a very uncertain account of the matter. I find no individual who has had the varioloid, who was ever *re-vaccinated.*

Now what do all these facts and circumstances prove? *First*, they prove that every individual is susceptible of vaccination. *Second*, that *re-vaccination* is not necessary before puberty. *Third*, that the system undergoes a change at puberty, and that re-vaccination is then necessary. *Fourth*, that vaccination is a sure preventive of smallpox. *Fifth*, that *re-vaccination* is a sure preventive of the varioloid. *Sixth*, that the third vaccination is inert. *Seventh*, that the system is susceptible of varioloid, after puberty, whenever the individual is exposed to smallpox without re-vaccination. *Eighth*, that *re-vaccination* is not necessary, if the first operation was performed since puberty. *Ninth*, that those who disregard vaccination are always liable to smallpox whenever exposed to the influence of that dreadful disease. *Tenth*, that if every individual were vaccinated before puberty, and re-vaccinated after that revolution of the system, there would be no such disease existing as smallpox or varioloid.

We do not arrive at these conclusions hastily, by any means; they are based on actual experiment upon many thousands, of all ages and sexes. Even since I have been preparing this paper, there have been more than

fifty examples before me, that would establish the foregoing statements, beyond all doubt. I visited the State of Maine, when the epidemic was there, and vaccinated the inhabitants of one town, in which I found the same undeviating rules to hold good. In Boothbay, the principal seat of the disease, it was noticed that the infection passed harmlessly by those who had been vaccinated.

It is hoped that every medical man, at least, will investigate this subject for himself, and let the public know the result. In all my experiments the genuine virus has been used. Very frequently, in places where vaccination is but little attended to, spurious lymph is used, and an imperfect protection will of course follow.

Smallpox in Boston.—Since the statement made by the Medical Association, the people appear less alarmed. Those who visit Boston, from the country, are now well satisfied that they were unnecessarily kept from transacting business here, through excessive fear. Cases are continually occurring, but they are more confined to one place than they were some weeks ago. The hospital at the foot of Bridge street is admirably provided with everything that could be desirable to make the unhappy sufferers by this disease, as comfortable as possible.

American Academy of Arts and Sciences.—The following catalogue of the officers of this institution is inserted, because it may be a convenience to medical gentlemen, throughout the country, to know whom to address, in writing to the Society. A large number of physicians belong to the Academy.

John Pickering, LL.D., *President;* Jacob Bigelow, M.D., *Vice President;* Charles Folsom, A.M., *Corresponding Secretary;* Benj. Peirce, A.M., *Recording Secretary;* Joseph Tilden, *Treasurer;* Enoch Hale, M.D., *Librarian;* George Hayward, M.D., John Ware, M.D., *Committee of Publication;* John Pickering, Jacob Bigelow, Daniel Treadwell, John Ware, Benjamin Peirce, *Rumford Committee.*

Population of France.—The total number of births in Paris, during the year 1837, was 29,192; or, 14,651 boys and 14,541 girls. Of the number born, no less than 9,578, or nearly one third, were born out of wedlock. The number of deaths amounted to 28,134. There died—at home, 17,127; in hospital, 10,604; in prison, 99; while 304 bodies were deposited at the Morgue.

Hence of every *five* persons who die in Paris, only *three* have the satisfaction of dying in bed.

The number of deaths from smallpox, out of a population of 774,338, amounted to 458; in the year 1836, it was only 227.

The proportion of males to females born is as 17 to 16; but of children born out of wedlock, the proportion is as 24 to 23.

As there is one birth for every 32.7 inhabitants, if we suppose the population to remain nearly stationary, the mean duration of life is expressed by 32.7 years. Before the revolution it was only 28.75.—*French Lancet.*

Prison Mortality in France.—From 1815 to 1818, the general mortality of the prisons in Paris was 1 death for every 12.01 prisoners; from 1819

to 1825, the mortality was reduced to one in 15.30. In the other prisons of the kingdom the general mortality was one in 20.9.

In the places where galley slaves are confined, the mortality from 1816 to 1827 was as follows :—

Rochefort, 1 in 11.51; Toulon, 1 in 20.55; Brest, 1 in 27.06.—*French Med. Gazette, Sept.*, 1839.

Adulteration of Bark.—The present high price of cinchona bark has given rise, in France, to an adulteration to which we think right to direct attention, as, from a similar reason, it may probably be attempted in this country :—

The bark employed in the adulteration is the cinchona ovata, and a considerable quantity has been sold to the central depot of the Parisian hospitals. On being analyzed by M. Bouchardat it was found to contain a peculiar crystallizable principle, but neither quinine nor cinchonine. The cinchona ovata may be recognized by the following characters. It is of a greyish color, mixed with pale yellow, the internal surface of the bark being dark and constantly dirty looking; it is much lighter than the true barks, and its form is that of a *tube*, from two lines to an inch in diameter, without any admixture of flat bark with it.—*French Lancet.*

Black Pitch in Hæmorrhoidal Affections.—Mr. Wardleworth, an English surgeon, has found the pix nigra of great benefit as a remedy in internal and external hæmorrhoids, whether of a blind or bleeding character. His formula is the following: Pitch, 3ss., divided into three pills, two to be taken every night, attention at the same time being paid to the state of the intestinal canal.

Ovarian Dropsy.—The following extraordinary case is taken from the Connecticut Courant. The references place the truth of the recital beyond all manner of doubt. "Died, at East Windsor, Con., on the 5th of Dec., inst., Mrs. Esther Stiles, aged 49 years. The disease (ovarian dropsy) which was the cause of her death, commenced as early as the year 1820, and on the 15th July, 1834, 28 pounds of water were drawn from the abdomen by tapping. Since that time 70 operations have been done, and more than 3115 pounds (nearly 12½ barrels) of water have been drawn. During the greater part of this long period, Mrs. Stiles's general health did not appear to suffer excessively, and until the last three or four weeks of her life, she ate and slept well, and attended to the ordinary domestic concerns of her family, and except from the unwieldiness of such a mass of water (often more than 50 pounds), she was not subject to any distressing sensations. Her strength, however, gradually declined, and at the time of her death she was very much emaciated. Should any person question the authenticity of this unparalleled case, reference may be made to Dr. Hiram Watson, the attending physician, to Drs. E. F. Read and James H. Morton, consulting physicians, or to her brother, Mr. John Morton, who, with his wife, assisted at most of the operations, and has kept a particular account of the date of such operations, and the quantity of water drawn."

On Longevity and Mortality in Prussia. By Dr. Hoffman.—During the 18 years, commencing 1st January, 1820, and ending 31st December,

1837, the mortality in 12,626,379, being the average population of Prussia during that period, amounted to 6,653,167. Of this number, 149,058 attained the age of from 80 to 85 years; 67,754 that of from 85 to 90 years; and 31,516 attained an age beyond 90 years. Thus, 248,328 individuals, or 3.732 per cent. of the population attained an age beyond 80. During the same period, the births amounted to 9,236,107. Of this number 319,243 were stillborn; 1,577,018 more died before the completion of the first year; 751,737 died during the 2d and 3d years; 305,237, during the 4th and 5th years; 171,808, during the 6th and 7th; 154,124, during the 8th, 9th and 10th; and 123,693, during the 11th, 12th, 13th and 14th years.—*Medicinische Zeitung.*

Treatment of Delirium Tremens without Opium. By T. Cahill, M.D.—Although confident, from a good deal of experience, of the infinite value of opium in many cases of delirium tremens, we have ourselves witnessed so much evil from its indiscriminate and exclusive use, that we gladly receive Dr. Cahill's criticisms on the practice. The original article contains the details of seven cases, which are intended to illustrate, and do illustrate, the proposition maintained by the author, "that opium is not beneficial in many cases; in others, that it is positively injurious; and that in all a cure can be effected without its assistance."—*Dublin Journal of Medical Sciences.*

Medical Miscellany.—Of 154 convicts now in the Tennessee State Prison, 61 attribute their crimes to the use of ardent spirits—66 are habitual drunkards, and 82 occasional drunkards.—What is the reason that the first American edition of the London Dissector, revised and corrected by Edward J. Christy, has not been sent to Boston? The work is needed here.—Dr. Dunglison's work on New Remedies is exceedingly admired by practitioners in this part of the country.—Dr. James Hamilton's table of Chemical Equivalents is wanted hereabouts.—Smallpox has appeared in the neighborhood of St. Johnsbury, Vt.—Dr. Thomas E. Gage, of New York, has been apprehended for procuring an abortion. Several others concerned in the same affair are likewise in limbo. The details are most shocking, and show a degree of moral turpitude almost without a parallel.—Assistant Surgeon D. Harlan is ordered to the Sloop of War Dale; Surgeon B. Ticknor is Fleet Surgeon, and T. M. Smith, Geo. Manesby, and Charles Bates, belong to the Ohio—now at Gibraltar.—The Westminster Medical Society, in England, numbers about 1200 members.—At a late meeting of the Medical Society of London, a member made some important statements respecting the effect of ergot of rye on fœtal life. A friend of his, he stated, instead of taking ergot of rye in his pocket, as formerly, when he went to a labor, had now substituted tea and sugar. Other members had not found it hurtful.

To Correspondents.—A foreign communication on the contagiousness of plague is reserved for next week.—Dr. Alcott's third paper came too late for this No. We trust our motives in giving insertion to these papers will not be misunderstood. So much has been said by others, in the Journal, respecting Dr. A.'s "notions," that he claimed, for once, as an act of justice, space to state his views in full. This we could not consistently refuse, though aware that some of our friends would, at first thought, find occasion for complaint.

Whole number of deaths in Boston for the week ending Dec. 21, 30. Males, 13—females, 17.

Of consumption, 5—dropsy, 2—infantile, 2—smallpox, 11—intemperance, 1—lung fever, 2—old age, 1—croup, 1—scarlet fever, 1—teething, 1—drowned, 1—fits, 1—stillborn, 3.

TREMONT-STREET MEDICAL SCHOOL.

The subscribers, at their private medical school in Tremont street, offer the following facilities to professional students.

A daily attendance at the Massachusetts General Hospital, and at the Eye and Ear Infirmary, with frequent opportunities of seeing cases, and surgical operations, in private practice, and in the public dispensaries. Arrangements have been made for affording obstetric practice to a considerable extent under the superintendence of the instructers.

A regular system of instruction by means of lectures and examinations in all the branches of the profession will be pursued throughout the year.

ANATOMY.—Recitations heard by Drs. Reynolds and Holmes. A course of lectures on Surgical Anatomy by Dr. Holmes. Demonstrations and Dissections.

SURGERY.—A complete course of eighty lectures, including diseases of the Eye and Ear, by Dr. Reynolds.

CHEMISTRY.—Recitations and instructions by Dr. Storer.

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THEORY AND PRACTICE OF MEDICINE, CLINICAL INSTRUCTION, AND MATERIA MEDICA, under the superintendence of Dr. Bigelow.

JACOB BIGELOW,
EDWARD REYNOLDS,
D. HUMPHREYS STORER,
OLIVER W. HOLMES.

Boston, Nov. 20, 1839. ep1meop6m

SURGEON'S TRUSS.—DR. M. R. FLETCHER'S PATENT.

For the radical cure of Hernia. This instrument was recently introduced to the medical profession, and favorably noticed in the "Boston Medical and Surgical Journal." Since that time specimens have been examined and tried by most of the surgeons in the New England States, from whom certificates have been received, expressing their confidence in its superiority over every other truss now in use. Its construction is neat, small, and the spring very light. It may be made longer or shorter, and will suit equally well Inguinal, Ventro-inguinal, or Femoral Hernia; the difference being in the form of the pad. The pad may be located at any desired spot, and the pressure increased as gradually and as much as requisite. This facility of adaptation will be of great convenience to physicians who may adjust them, as well as to the individuals who may wish to vary the pressure. I have the liberty of referring to a large number of the profession in the city and country, only a few of whom it will be expedient to mention, viz., Drs. J. C. Warren, G. Hayward, W. Ingalls, S. D. Townsend, J. Jeffries, J. V. C. Smith, G. B. Doane, W. Lewis, Boston; W. J. Walker, Charlestown; A. L. Peirson, Salem; J. C. Dalton, Lowell; D. Crosby, Professor of Anatomy and Surgery, Dartmouth College; E. Hoyt, President, and J. B. Abbott, Secretary of N. H. Medical Society; T. Haynes, Concord, N. H.; J. Roby, Professor of Anatomy and Surgery, Bowdoin College. Price from $1 50 to $4 00, according to size and finish. To physicians those of men's sizes will be sold at $2, 2 25, 2 50, 2 75, and $3 00. Those sending for them will mention right or left side, the kind of hernia, and the number of inches around the pelvis. Specimens may be seen at Metcalf's, 33 Tremont Row, and at Carter's, corner of Hanover and Portland streets, druggists. They may be obtained at No. 9 Howard street.

Arrangements have been made with Mrs. H. Williams (lecturer on anatomy to females) to wait on ladies from 9 A. M. to 1 P. M., on Mondays and Saturdays, at her residence, No. 29 Friend street.

Aug 21— M. R. FLETCHER.

MEDICAL INSTRUCTION.

The subscribers are associated for the purpose of giving Medical Instruction. Students will be admitted to the medical and surgical departments of the Massachusetts General Hospital, may see cases in one of the Dispensary Districts, and have abundant opportunities for observing the smallpox and varioloid diseases. They will receive clinical instruction upon the cases which they witness and during the interval of the regular lectures at the College, they will receive instruction by lectures and recitations upon the various departments of medical science. Ample opportunities will be afforded for the cultivation of practical anatomy. They have access to a large library, and are provided with a study, free of expense.

Applications may be made to either of the subscribers.

M. S. PERRY, M.D.
H. I. BOWDITCH, M.D.
J. V. C. SMITH, M.D.
H. G. WILEY, M.D.

Oct 9—eop

THE AMERICAN MEDICAL ALMANAC FOR 1840,

Is now published, and may be obtained at the Journal office. This volume is much larger than the first, and its contents will be found in every respect more complete and useful. Price 75 cents. Copies are done up in paper covers to be sent by mail, the price of which is 62 1-2 cents. The postage, for less than 100 miles, will be only 6 cents—over 100 miles, 10 cents. Dec. 11.

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PHYSICIANS in any section of the United States can procure ten quills charged with PURE VACCINE VIRUS, by return mail, on addressing the Editor of the Boston Medical and Surgical Journal, enclosing one dollar, *post paid*, without which no letter will be taken from the post office. June 19

THE BOSTON MEDICAL AND SURGICAL JOURNAL is published every Wednesday, by D. CLAPP, JR., at 184 Washington St., corner of Franklin St., to whom all communications must be addressed, post paid. It is also published in Monthly Parts, with a printed cover. There are two volumes each year. J. V. C. SMITH, M.D., Editor. Price $3,00 a year in advance, $3,50 after three months, or $4,00 if not paid within the year. Two copies to the same address, for $5,00 a year, in advance. Orders from a distance must be accompanied by payment in advance or satisfactory reference. Postage the same as for a newspaper.